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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/781,273	02/13/2001	Yoshiki Ohta	Q62912	9431

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EXAMINER

MICHALSKI, JUSTIN I

ART UNIT PAPER NUMBER

2644

DATE MAILED: 04/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/781,273	Applicant(s) OHTA, YOSHIKI	
	Examiner Justin Michalski	Art Unit 2644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11, 13, 16 and 18 is/are allowed.
- 6) ☒ Claim(s) 1-10, 12, 14, 15, 17 and 19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 15 November 2004 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-10, 12, 14, 15, 17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller et al. ("Miller") (US Patent 5,506,910) in view of Koyama et al. (US Patent 5,581,621).

Regarding Claim 1, Miller discloses a sound field correcting method in an audio system, for supplying audio signals to a plurality of first sound generating means having a first reproducing frequency band and a second reproducing frequency band and a second sound generating means having the second reproducing frequency band (Fig. 5, speakers 36a and 36b, it is inherent that speakers will have first and second

frequency bands), said correcting method comprising: a first step of supplying a noise simultaneously to said plurality of first sound generating means and then detecting a reproduced sound in the first reproducing frequency band that is reproduced by said plurality of first sound generating means (Col. 7, lines 41-51); a second step of supplying the noise simultaneously to said plurality of first sound generating means and then detecting a reproduced sound in the second reproducing frequency band that is reproduced by said plurality of first sound generating means (Fig. 8, reference 270); a third step of supplying the noise to said second sound generating means and then detecting the reproduced sound in the second reproducing frequency band (Col. 7, lines 41-51; Fig. 8, reference 270); and a fourth step of adjusting levels of the audio signals supplied to said plurality of first sound generating means and are adjusted to a predetermined target characteristic (Fig. 8, references 292). Although Miller discloses measuring the level of the reproduced sounds, Miller does not disclose using an average level of reproduced sound for adjusting the sound generating means. Koyama et al. discloses an automatic adjustment system of an audio device by detecting reproduced sounds (Figure 1). Koyama et al. further discloses a method of making an automatic adjustment to a parameter of an audio system based on an average level of a low band frequency response which is inherently a sound spectrum (Column 24, lines 54-59). Koyama et al. further discloses that if the average level is not within a predetermined range, adjustments are made to correct the output (Col. 24, lines 60-67). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to analyze and make an adjustment based on an average as disclosed by

Koyama et al. in order to make an adjustment to enhance the output of an audio system.

Regarding Claim 2, Miller discloses a sound field correcting method in an audio system, for supplying audio signals to a plurality of first sound generating means having a first reproducing frequency band and a second reproducing frequency band and a second sound generating means having the second reproducing frequency band (Fig. 5, speakers 36a and 36b, it is inherent that speakers will have first and second frequency bands), said correcting method comprising: a first step of supplying a noise simultaneously to said plurality of first sound generating means and then detecting a reproduced sound in the first reproducing frequency band that is reproduced by said plurality of first sound generating means (Col. 7, lines 41-51); a second step of supplying the noise simultaneously to said plurality of first sound generating means and then detecting a reproduced sound in the second reproducing frequency band that is reproduced by said plurality of first sound generating means (Fig. 8, reference 270); a third step of supplying the noise to said second sound generating means and then detecting the reproduced sound in the second reproducing frequency band (Col. 7, lines 41-51; Fig. 8, reference 270); and a fourth step of adjusting levels of the audio signals supplied to said first and second sound generating means are adjusted to a predetermined target characteristic (Fig. 2, Paragraph bridging columns 8 and 9). Although Miller discloses measuring the level of the reproduced sounds, Miller does not disclose using an average level of reproduced sound for adjusting the sound generating means. Koyama et al. discloses an automatic adjustment system of an audio device by

detecting reproduced sounds (Figure 1). Koyama et al. further discloses a method of making an automatic adjustment to a parameter of an audio system based on an average level of a low band frequency response which inherently a sound spectrum (Column 24, lines 54-59). Koyama et al. further discloses that if the average level is not within a predetermined range, adjustments are made to correct the output (Col. 214, lines 60-67). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to analyze and make an adjustment based on an average as disclosed by Koyama et al. in order to make an adjustment to enhance the output of an audio system.

Regarding Claim 3, Miller further discloses a system according to claims 1 or 2 above, wherein the first reproduction frequency band is substantially equal to an audio frequency band, and the second reproducing frequency band is substantially equal to a low frequency band (Paragraph bridging columns 9 and 10).

Regarding Claim 4, Miller further discloses a system according to claims 1 above, wherein the first reproduction frequency band is substantially equal to an audio frequency band, and the second reproducing frequency band is substantially equal to a high frequency band (Paragraph bridging columns 9 and 10).

Claims 5-9 are analogous to Claims 1-4 and rejected for the same reasons.

Regarding Claim 10, Miller further discloses detecting a first reproduced sound and a second reproduced sound from a plurality of first speakers, said first and second reproduced sounds being generated by supplying a noise simultaneously to said plurality of first speakers (Fig. 5, speakers 36a and 36b), wherein the first reproduced

sound is in a first frequency band and the second reproduced sound is in a second frequency band (Col. 7, lines 41-51); detecting a third reproduced sound from a second speaker, wherein the third reproduced sound is in the second frequency band (Fig. 8, step 270). Miller does not disclose using an average level of reproduced sound for adjusting the sound generating means. Koyama et al. discloses an automatic adjustment system of an audio device by detecting reproduced sounds (Figure 1). Koyama et al. further discloses a method of making an automatic adjustment to a parameter of an audio system based on an average level of a low band frequency response which is inherently a sound spectrum (Column 24, lines 54-59). Koyama et al. further discloses that if the average level is not within a predetermined range, adjustments are made to correct the output (Col. 24, lines 60-67). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to analyze and make an adjustment based on an average as disclosed by Koyama et al. in order to make an adjustment to enhance the output of an audio system.

Regarding Claim 12, Miller further discloses a system according to claims 1 or 2 above, wherein the first reproduction frequency band is substantially equal to an audio frequency band, and the second reproducing frequency band is substantially equal to a low frequency band (Paragraph bridging columns 9 and 10).

Regarding Claim 14, Miller further discloses a system according to claims 1 above, wherein the first reproduction frequency band is substantially equal to an audio frequency band, and the second reproducing frequency band is substantially equal to a high frequency band (Paragraph bridging columns 9 and 10).

Claims 15, 17, and 19 are analogous to Claims 10, 12, and 14 respectively and rejected for the same reasons.

Allowable Subject Matter

4. Claims 11, 13, 16, and 18 are allowed.


Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin Michalski whose telephone number is (571)272-7524. The examiner can normally be reached on M-F 7-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on (571)272-7564. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JIM


SINH TRAN
SUPERVISORY PATENT EXAMINER